Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original):   An image processing apparatus, comprising:

a reflector for reflecting emitted light changing with a predetermined pattern;

an image capturing device for capturing an image of the reflected light reflected by the reflector;

a difference calculator for calculating a difference, among 2N consecutive frames, between a sum in recent N frames and a sum in other N frames for each pixel of the image of the reflected light, captured by the image capturing device;

a comparator for comparing the difference calculated by the difference calculator, with a predetermined threshold;

a signal processor for outputting one of a first signal and a second signal depending on a result of the comparison performed by the comparator;

a determination device for determining at a predetermined interval whether the signal output from the signal processor is a predetermined signal; and

a detector for detecting an invader according to a result of the determination performed by the determination device.

Claim 2 (original):   An image processing apparatus as claimed in claim 1, further comprising a floodlight for emitting the emitted light changing with the predetermined pattern.

Claim 3 (original):   An image processing apparatus as claimed in claim 1, wherein N=2.

Claim 4 (original):   An image processing apparatus as claimed in claim 3, wherein a period of the emitted light changing with the predetermined pattern is equal to a period of time of three frames in the image capturing device.

Claim 5 (original): An image processing apparatus as claimed in claim 4, wherein the determination device determines at an interval of six frames whether the signal output from the signal processor is a high-level signal.

Claim 6 (currently amended): An image processing apparatus as claimed in ~~claim~~ claim 4 ~~5~~, wherein the determination device changes the interval at which the determination device determines whether the signal output from the signal processor is a high-level signal to any of five frames, six frames, and seven frames.

Claim 7 (original): A method for image processing, the method comprising the steps of:

reflecting emitted light changing with a predetermined pattern;

capturing an image of the reflected light which was reflected in the step of reflecting;

calculating a difference among 2N consecutive frames, between a sum in recent N frames and a sum in other N frames for each pixel of the image of the reflected light which was captured in the step of capturing;

comparing the difference calculated in the step of calculating with a predetermined threshold;

outputting one of a first signal and a second signal depending on a result of the comparison performed in the step of comparing;

determining at a predetermined interval whether the signal output in the step of outputting is a predetermined signal; and

detecting an invader according to a result of the step of determining.

Claim 8 (currently amended): A computer readable program recorded on a computer-readable recording medium, the program comprising:

a difference calculation step of calculating a difference, among 2N consecutive frames, between a sum in recent N frames and a sum in other N frames for each pixel of a captured image of reflected light;

a comparison step of comparing the difference calculated in the difference calculation step with a predetermined threshold;

a signal processing step of outputting one of a first signal and a second signal depending on a result of the comparison performed in the comparison step;

a determination step of determining at a predetermined interval whether the signal output in the signal processing step is a predetermined signal; and

a detection step of detecting an invader according to a result of the determination performed in the determination step.

Claim 9 (currently amended): A process of computer executed processing based on a computer readable program recorded on a computer-readable medium, the process comprising:

a difference calculation step of calculating a difference, among 2N consecutive frames, between a sum in recent N frames and a sum in other N frames for each pixel of a captured image of reflected light;

a comparison step of comparing the difference calculated in the difference calculation step with a predetermined threshold;

a signal processing step of outputting one of a first signal and a second signal depending on a result of the comparison performed in the comparison step;

a determination step of determining at a predetermined interval whether the signal output in the signal processing step is a predetermined signal; and

a detection step of detecting an invader according to a result of the determination performed in the determination step.